

**State of Wisconsin/Department of Transportation**  
**RESEARCH PROGRESS REPORT FOR THE QUARTER ENDING: Mar 31, 2002**

Program: SPR-0010(36) FFY99		Part: II Research and Development	
Project Title: Equivalency of Subgrade Reinforcement Methods		Project ID: 0092-00-12	
Administrative Contact: Nina McLawhorn		Sponsor:	
WisDOT Technical Contact: Error! Bookmark not defined.		Approved Starting Date: Oct 1, 1999	
Approved by COR/Steering Committee: \$100,616.00		Approved Ending Date: Jan 31, 2002	
Project Investigator (agency & contact): Craig Benson: UW-Madison			

**Description: Error! Bookmark not defined.**

<b>Total study budget</b>	<b>Current FFY budget</b>	<b>Expenditures for current quarter</b>	<b>Total Expenditures to date</b>
<b>\$100,616.00</b>	<b>\$33,538.68</b>	<b>\$3,874.77</b>	<b>\$77,194.64</b>

**Progress This Quarter:**

(Includes project committee mtgs, work plan status, contract status, significant progress, etc.)

All of the large-scale model tests of Breaker Run, Foundry Slag, Bottom Ash, and Foundry Sand are completed. Also, the data analysis of each test is done. Same test materials, except Breaker Run are now being used to run conventional resilient modulus tests using laboratory specimens.

The instrumentation that will be used for geosynthetic tests have been determined and some of the strain gages are already being built. The Grade-2 material was tested at 12 inch depth, which will serve as a reference test for the geosynthetic materials. With this test, also testing of Grade-2 in large scale model tests is completed.

Writing a report that summarizes all the test results has been started. A paper on resilient modulus is being written for submission to the ASTM meeting on the subject in June 2002.

Collecting data from the field demonstration is continuing.

**Work Next Quarter:**

Geosynthetic tests will start as soon as the large-scale model experiment pit is modified for these tests. These tests will include testing Geogrid, Woven Geotextile, Non-woven geotextile, Drainage Geocomposite, and Geoweb all of which are used with Grade-2.

Comparison of the moduli obtained from the large-scale model tests, the laboratory specimen tests, and the field falling weight deflectometer tests will be performed and a summary report will be written.

Writing a summary report of large-scale model test results along with collecting data from the field demonstration will continue.

**Circumstances affecting progress/budget:**

None to date

Gantt Chart:

Tasks		1999				2000				2001				2002			Progress
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	%
1	Literature Review																100
2	Laboratory Investigation																90
3	Large Scale Test Data																85
4	Field Demonstration																85
5	Synthesis of Results																60

Note: Gantt chart shown in State Fiscal Year Quarters